

## **I WISH I COULD TAKE MY KIDS OUT MORE: BARRIERS TO OUTDOOR EDUCATION AT A NORTHERN WISCONSIN PUBLIC SCHOOL**

Why don't teachers take advantage of the natural areas available to them? What could I do to help increase the amount of outdoor activities at the school I work in? These are the questions I grappled with as I, the Gifted and Talented Coordinator for the School District of Bayfield in Bayfield, Wisconsin, undertook an action research project in the Spring of 2009. Through the help of my collaborative action research team and the UW-Arboretum Earth Partnership for Schools program, I developed and researched the question: **"What would increase the amount of outdoor educational experiences for students at Bayfield Elementary School."** Over the course of several months, I learned more about the barriers to outdoor education in public schools, learned the action research process, and hopefully, made some concrete positive change that will help our students' educations.

### **INTRODUCTION**

#### **Research Setting**

Located on Lake Superior, the School District of Bayfield is the northernmost district in the state of Wisconsin. The district serves the communities of Bayfield, the Red Cliff Indian Reservation, La Pointe on Madeline Island, and the surrounding townships. The district has two buildings, a larger K-12 building in Bayfield and a smaller two-room elementary school on Madeline Island. The total K-12 enrollment is between 300 and 400 students. Around 75-80% of the students are Ojibwe Indians from the Red Cliff Band of Lake Superior Chippewa. A similar percentage of students are eligible to receive free or reduced lunch.

Bayfield is the gateway to the Apostle Islands National Lakeshore and a National Park Service headquarters building is only a block away from Bayfield School. With the Chequamegon National Forest covering much of the county, the National Forest Service also has a strong presence in the area. Fish hatcheries and other programs are operated by the Great Lakes Indian Fish and Wildlife Commission and the Wisconsin Department of Natural Resources within the boundaries of the district. Northland College, an environmentally-focused liberal arts college operates in Ashland, about 25 miles south of Bayfield. Bayfield School is situated on a hill overlooking Lake Superior and the Apostle Islands.

The Bayfield area is filled with natural areas, and the district properties and adjacent lands are no exception. A large wooded ravine with a small creek surrounds the school on two sides. Another side is a semi-wooded hill with apple trees and gardens leading up to a baseball field surrounded by forested public land. There is also a school forest about 4 miles from the school.

The beauty of the land and the importance of natural resources in the local economy have instilled a strong conservationist ethic across all sectors of society. The Ojibwe people, who have called the area home for at least four centuries traditionally made seasonal harvests of maple sugar, wild rice, fish, game, medicinal plants, and other natural resources. Many members of the Red Cliff Band continue these practices (either through traditional or more modern means) to the present day. Non-Native fishermen and loggers also rely on the area's natural resources for their livelihoods. The land and water are the reasons why tourism is the dominant industry in the area, so most local

businesses have a stake in the welfare of the environment. The educated and elite classes of the area are largely politically liberal and environmentally-focused as well.

In my position as K-12 Gifted and Talented Coordinator, I have the ability to conduct activities with students in every class. As a result, I feel I have a pretty good handle on what is going on in each room especially at the elementary level. Having attended the Earth Partnership for Schools 2-week RESTORE Institute in July 2008, a major goal of mine for the 2008-09 school year was to push outdoor education. Finding I was only able to do this with a few students, I sought a way to expand the potential influence of the Earth Partnership team at Bayfield. I decided to take a Collaborative Action Research course from the UW-Arboretum as a way of seeing this goal through. I did not know coming in what my research topic would be, but I did know I wanted to do research that would potentially directly benefit the students and teachers at Bayfield.

## **FORMING AN ACTION RESEARCH PROJECT**

### **Collaborative Action Research**

I was not alone as I navigated through the action research process. Two other teachers took the class: Jeff Anderson from the Milwaukee School District, and Laura



Bohn, a 5<sup>th</sup>-grade teacher at Bayfield and member of our Earth Partnership team. Through telephone meetings, we guided each other through the difficulties we faced.

None of us had any

experience with action research, (where the researcher is also a willing participant and embraces his or her subjective points of view on the subject of the research) so it was very helpful to have team members to share with. In fact, Laura and I made an effort to have our research questions parallel each other's so we could draw information from each other's work. Finding the question proved difficult, however.

### **The Question**

I knew I wanted to research how to get students outside more in their regular-ed. classrooms. I did not know how exactly to phrase the question and initially was thinking on far too big a scope to manage. After a great deal of discussion, using the critical friends process, Laura and Jeff helped me settle on the question, "What would increase the amount of outdoor educational experiences for students at Bayfield Elementary?" This narrowed the scope to 11 elementary classrooms and focused the research in a positive direction that would empower teachers rather than criticize them.

### **Prior Research**

My main research question led me to two other questions: what are the barriers to outdoor education, and what do teachers need to overcome them? I was able to find two prior examples of research on similar questions. *Barriers to Environmental Education* by Ham and Sewing and *Using Natural Settings for Environmental Education: Perceived Benefits and Barriers* by Deborah Simmons both looked at barriers to environmental or outdoor education. Ham and Sewing was about Environmental Education barriers in general, not only those outdoors, but it brought up some major issues I had not considered likely barriers at our school. Both articles discussed, as I had found in my

experience, how teachers viewed environmental education as desirable but did very little teaching of it.

At that point, all my thoughts on barriers focused on simple logistical issues and hadn't considered teacher feelings of inadequacy or being untrained as an issue, but the two articles spent a lot of time on these. Ham and Sewing separated types of barriers into motivational, conceptual, and logistical barriers. I decided to include the more mental types of barriers into my study, but I predicted that logistical issues (scheduling, transportation, student behavior, etc.) would be the most significant at Bayfield. Both studies found lack of planning time to be the most difficult barrier for teachers, and I predicted the same result in my study. I was surprised to see discipline and special-education issues largely absent as barriers in the larger studies and predicted these could figure more importantly in my study.

The research called for wider geographic variation in studies, which was something I could offer (neither study was in the Upper Midwest). However, with a sample size of 11, I doubted that my findings would have enough statistical validity to say much beyond Bayfield School itself. I was not overly concerned, however, because I was interested in the specific needs of the actual individual teachers than I was in the statistical trends.

## **DATA COLLECTION**

### **Plan**

I decided to have a multi-step data collection process based on triangulating artifact, observational, and inquiry data. I would first gather artifacts from teachers and from the computerized curriculum site Link 4 Learning to determine what was already

being done outside. I would then observe teachers to see how frequently they brought their students outside. Finally, I would survey teachers to find out what they thought the barriers to outdoor education are and conduct a few in-depth interviews to follow up.

### **Artifacts and Observations**

Right away, I went to the Link 4 Learning site and could not find a single outdoor activity listed in the regular curriculum at the elementary grades. After asking some teachers, I discovered that mostly traditional textbook/worksheet-type assignments are entered even though teachers are doing many more exciting things. This brought up questions in my mind about the Link 4 Learning site and its potential effectiveness for sharing innovative lessons among teachers, when in fact, the least innovative lessons are the most likely to be posted.

I then went to the teachers directly and asked for examples of things they had done outside. I received a number of stories and photographs. Most were from field trips, but some were just quick science lessons outside on the school grounds. Still, it seemed spotty and haphazard as to when and why classes went outside.

On the other hand, the observation journal I kept for two weeks at the beginning of April showed me that I was perhaps underestimating the amount of actual outdoor activities going on. In the course of a few days, I saw first-graders testing pinwheels, kindergarteners flying homemade kites, 5<sup>th</sup>-graders doing



single-spot observations, and a multi-grade field trip to the sugar bush to make maple syrup. Once I actually started paying close attention, I realized that the elementary teachers are doing outdoor lessons, and they are integrating art, language arts, Native studies, and social studies into them.

Still, I pressed on with my action research project more convinced than ever that Bayfield's teachers are willing to do even more outside so long as certain barriers were removed. To determine what those barriers were, I moved on to my primary data collection instrument: the survey.

### **Survey**

The primary instrument of data collection I used in this project was a two-page survey listing several potential conceptual, motivational, and logistical barriers on one side, and items that could potentially help overcome the barriers on the other side (see pages 11). The survey was distributed to all 11 classroom teachers at Bayfield Elementary.

### **Survey Results and Analysis**

The survey began on April 24, 2009 and was supposed to have ended on May 11, 2009. Because of some technical difficulties with the Infinite Campus software used to deliver the questions, the end date had to be extended with the final four participants completing the survey with paper and pencil. In all, results were gathered from 10 of the 11 elementary classroom teachers at Bayfield Elementary ( $n=10$ ).

Once I obtained the data, I tallied the numbers and set to determine which barriers were least and most significant, and what items would be of the most assistance

in getting teachers outside more. I weighted answers of “Strongly Agree” or “Strongly Disagree” as double those of “Agree” or “Disagree.”

<b>Least Significant Reported Barriers</b>	
<b>(Most teachers choosing “Disagree or Strongly Disagree”).</b>	
1.	The administration does not support outdoor activities. The students are not motivated to participate in outdoor activities. I am not particularly interested in doing more outdoor activities with my students. Outdoor activities are not worthwhile for teaching academics.
2.	Students do not learn as much during outdoor activities as they do inside.
3.	Our school does not have suitable areas for outdoor education.
4.	Only the natural sciences can be easily taught outside.

As I anticipated, motivational and conceptual barriers ended up among the least significant barriers reported by the teachers. The survey confirmed that teachers are aware of the benefits of outdoor education for students, and for the most part understand that science is not the only subject that can be taught outside. Furthermore, they know the administration wants them outside, their students want to be outside, and they themselves want to be outside more often. They also acknowledge that the school has areas that could potentially be used for outdoor education. From this data, one can conclude that motivational and conceptual barriers are not what are holding teachers back from more outdoor activities, and that logistical barriers play a larger role.

<b>Items least necessary to overcome barriers</b>	
<b>(Most teachers choosing “Disagree or Strongly Disagree”).</b>	
1.	More personal interest in the outdoors.

Supporting the notion that motivational and conceptual issues are not significant barriers to outdoor education at Bayfield Elementary is the lone item to be reported by most of the teachers to be of no use in increasing the amount of outdoor education: personal interest. From this, one might conclude that teachers find their personal interests irrelevant to what is important to teach, but more likely, I think it reflects a



population of teachers that is already very interested in the outdoors and is held back by other factors.

Most Significant Reported Barriers	
(Most teachers choosing “Agree or Strongly Agree”).	
1.	I would not have adequate support for students with emotional and behavioral disabilities.
2.	There is not enough time in the day to fit outdoor activities into the schedule.

Two logistical barriers emerged as the most significant reported barriers: lack of support for students with emotional and behavioral disabilities, and lack of time in the day for outdoor activities.

Bayfield Elementary has several special-education aides on staff to help support the high proportion of students diagnosed with emotional and behavioral disabilities. However, these aides are usually assigned to one student and in classes with more than one student with these types of disabilities (yet only one aide), one can see how this issue might become a barrier. However, I was surprised at this being the most significant reported barrier since there is a lot of variation across classrooms.

Less surprisingly, scheduling issues were the other significant barrier mentioned. National trends dictating more rigid accountability standards in math and reading make it difficult for our teachers to fit any kind of science or social studies into the day much less outdoor lessons. Depending on what day it is, a class may be taken at points during the day for music, art, Native culture, physical education, Spanish, or keyboarding. Individual and small groups of students are pulled throughout the day for special-ed. support, reading support, guidance, and (guilty as charged) gifted and talented. This leaves very few large chunks of time that an outdoor activity could potentially slide into. These scheduling issues are widely acknowledged in the school and have been a major focus of restructuring efforts by the administration.

**Items most likely to help teachers overcome barriers**

(Most teachers choosing “Agree or Strongly Agree”).

1. An additional special-ed. aide.
2. Fun and exciting activities for students to do outside.
3. Another teacher to watch half the class and only take half the class outside at a time.
4. A quicker and easier way to get to available natural areas.

The items most reported likely to increase the number of outdoor activities were an additional special-education aide, fun and exciting activities to do outside, only having to take half the class at once, and a quicker, and easier way to get to natural areas. These results fit nicely with my original intent to aid teachers in getting out more often. I am not a special-ed. aide, but as an extra adult to help if a student has an issue, my presence could potentially help alleviate this barrier. The teachers want activities, and I have materials the Earth Partnership for Schools and other programs that I could make available. Should a teacher wish to take half a class out at a time, I could conceivably conduct an activity with the rest of the students inside. I cannot make students walk faster, but I could be able to arrange bussing and other forms of transportation taking some of the paperwork burden off of the classroom teachers.

I neglected to include a potential item of help that would alleviate the scheduling difficulties described above. More research into this barrier will be necessary.

**Survey Page 1 with responses (n=10 does not include responses of neutral, uncertain, or left blank):**

<b>The reason I do not bring my students outside for outdoor education more often is...</b>	Strongly disagree	Dis-agree	Agree	Strongly agree
The administration does not support outdoor activities.	6	3		
The materials I would need to conduct outdoor activities are not available to me.	2	3	1	
I do not have enough money in my budget for outdoor activities	2	4		1
It is too difficult to manage students outside.	1	6	3	
I worry too much about the safety of students.	1	6	3	
The students are not motivated to participate in outdoor activities.	5	5		
Our school does not have suitable areas for outdoor education.	5	3		1
There is not enough accessibility for the students in my class with physical disabilities.		2	2	1
I do not have enough knowledge to plan or conduct outdoor activities.	3	5	1	
I do not have enough time to plan outdoor activities.	2	3	3	
There is not enough time in the day to fit outdoor activities into the schedule.	4		3	1
Students do not learn as much during outdoor activities as they do inside.	6	2		
I do not know how to fit outdoor activities into the curriculum.	3	4		
The class is too large for outdoor activities.	4	3	1	
I am not aware of what natural areas are available for outdoor activities.	3	4	1	
School policies make it difficult to take students outside.	2	6	1	
I would not have adequate support for students with emotional and behavioral disabilities.	2	3	2	2
It is too difficult and time-consuming to get to and from natural areas.	3	5	1	
Only the natural sciences can be easily taught outside.	3	6		
I am not particularly interested in doing more outdoor activities with my students.	6	3		
Outdoor activities are not worthwhile for teaching academics.	6	3		
The weather is too unpredictable or inclement.	3	3	1	

**Survey Page 2 with responses (n=10 does not include responses of neutral, uncertain, or left blank):**

<b>I would take my students outside more often if I had...</b>	Strongly disagree	Dis-agree	Agree	Strongly agree
Encouragement from the administration to conduct more outdoor activities.			2	1
Access to more equipment and materials for use outside.		1	4	1
Additional funds in the budget to use for outdoor activities.			3	2
Clear rules and consequences for student misbehavior outside.	1	2	2	2
Training in first aid and outdoor safety for myself and students.		2	1	1
Fun and exciting activities for students to do outside.			5	2
More information on what natural areas are available on the school grounds and nearby.		4	3	2
More handicap access to natural areas.			2	4
More training and curriculum for planning outdoor lessons.		1	5	1
More planning time.	1	1	4	2
Training and materials on how to integrate outdoor activities into all subjects in the curriculum.		2	5	1
Research-backed data showing the benefits of outdoor activities on student performance.	1		6	
Another teacher or expert who is more knowledgeable about outdoor education to come with the class.		1		3
Another teacher to watch half the class and only take half the class outside at a time.	1	2	4	2
Information on how my colleagues are already using available natural areas.			3	1
More clarity in school policies related to outdoor education and the use of natural areas.			1	1
An additional special-ed. aide.			5	3
A quicker and easier way to get to available natural areas.		1	4	2
More personal interest in the outdoors.	3	2	1	

## **CASE STUDIES**



### **3<sup>rd</sup>-Grade Teacher**

“Karen” is a third-grade teacher at Bayfield Elementary. She is very skilled at putting together large interdisciplinary projects that engage her students. Her class takes frequent field trips including some with outdoor components. This year

she they went to an apple orchard with a woodland trail, dogsledding through the woods, to the Mawikwe ice caves (frozen sandstone caves along the shore of Lake Superior), and to the sugar bush. In spite of all this, Karen is not happy with the amount of time her class spends outside. In previous years she had been able to use the school forest and other areas on a regular basis. She has long wished to be able to teach her academic subjects entirely outside. When she found out about the action research project, she was very willing to discuss what barriers she has encountered and expressed hope that the project and collaboration with me would increase the frequency of going outside.

With the multiple innovative projects and field trips Karen has going at a particular time, her biggest obstacle is always finding the time to plan, arrange, and implement all her ideas. For her, there is never enough time in the day. She wishes she could have an entire semester to plan how to teach everything outside and then come back and do it. Short of that happening, the biggest barrier for Karen is always trying to

squeeze in outdoor activities among all the other things she wants to do and is mandated to do.

### **Kindergarten Teacher**

“Jenny” is an experienced kindergarten teacher at Bayfield Elementary. She is a strong and loving classroom manager and has had particular success introducing structure and routine into the lives of kindergarteners who struggle to learn the norms and rules of school. She usually has multiple students with high emotional and behavioral needs. In kindergarten, students are rarely pulled out of the classroom for special education so for learning to happen Jenny has had to create a classroom community that responds these needs.

A trip outside disrupts the usual routine and structure, which can create a lot of difficulty for students with emotional and behavioral disabilities. Jenny still takes her class outside, because she knows it is important, but often ends up devoting all her time and energy toward one or two students.

### **5<sup>th</sup>-grade Teacher**

Laura Bohn is a fifth-grade teacher at Bayfield, a member of the EPS team, and my partner in this action research project. She has an environmental-education background and is enthusiastic about outdoor projects. Her students have done single-spot observations throughout the year and have maintained a phenology record for the area. Despite this, Laura still struggles with the question of how much time should be devoted to the outdoors.

Bayfield Elementary teachers frequently complain that after all the time devoted to mathematics, language-arts, and specials (physical education, music, art, Spanish,

Native Culture, keyboarding, etc.), there is very little time left for any science, social studies, or health. Under pressure to cover a wide range of topics and standards in these subjects, textbook work becomes the most convenient, if not always most desired, method of instruction. Laura struggles with this as well. She knows that by taking them outside for science regularly, there is a trade off in what she has time to cover in other areas. Behavior incidents caused by one or two students provide the other major barrier to effective instruction outside.

### **SUMMARY OF DATA FINDINGS**

Bayfield Elementary teachers do outdoor activities with their students on a fairly frequent basis. They feel outdoor education is important and want to do more of it. A few logistical barriers stand in the way of increasing the amount of such activities. Teachers have difficulty fitting outdoor activities into the schedule and making accommodations for students with emotional and behavioral disabilities. The general survey and specific case studies show that if these two barriers were addressed, more Bayfield students would be learning outside.

### **NEXT STEPS**

Now that the two primary barriers to outdoor education at Bayfield Elementary have been discovered, the next step is how to address those barriers. How can we make it possible to fit longer periods outdoors into an already packed schedule? How can we include students with special needs in outdoor activities without making the burden on the classroom teacher too heavy?

### **Scheduling**

As was mentioned above, the administration is in the process of adjusting the schedule to create larger blocs of time for academics. This will hopefully address one aspect of the scheduling issue. However, in the era of No Child Left Behind and intense pressures on teachers to meet standards in language arts and math, finding the time in the day for outdoors may remain difficult. Our teachers believe outdoor activities have a place in a child's education, they may need to be shown how a full rigorous academic curriculum in multiple subject areas can be taught outside.

### **Accommodations for students with disabilities**

This barrier leads to difficult situation because everyone wants students with disabilities to be included but the burden on a single teacher to accommodate special needs for one child while teaching the rest of the class, may prove too great. The solution to this problem is likely to be having more adults (mostly special-ed. aides, but also classroom aides, Gifted and Talented Coordinators, and other school staff) take part in the activity so the lesson can continue even while a specific student's immediate needs are being tended to.

### **My Recommendation**

This research should be presented to the teachers at an inservice where they can be asked for more input on possible solutions. Hopefully, this would lead to a more orderly systematic approach to scheduling outdoor activities that teachers can plan for and work into their schedules while extra staff support is arranged. Incorporating Native Culture, art, and physical education into the outdoor times will help alleviate some of the scheduling pressures. This process must be bottom-up as it is the teachers' information

that led to this research, and it is the commitment from the teachers that will ultimately allow it to succeed.

### **Concluding remarks on Action Research**

Doing this study as a collaborative action research project was very worthwhile. Had it been a more traditional “objective” form of research, I would have had a harder time relating to the project and justifying spending time on it. Working with Laura and Jeff helped me clarify my thoughts and keep moving forward. I may have sacrificed some objectivity and ability to replicate results, but the format gave me a product that will be meaningful and applicable to myself and the others who are directly affected by the questions it examines.



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